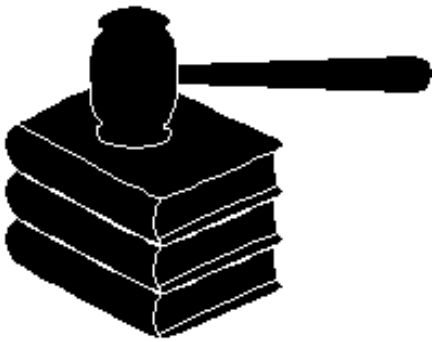
Activity 12

Federal and State Laws on Hazardous Waste



Duration	1 class period
Grade Level	7-12
Key Terms/ Concepts	Hazardous waste Liability Potentially Responsible Parties Risk Superfund
Suggested Subjects	Civics/Government Social Studies

Purpose

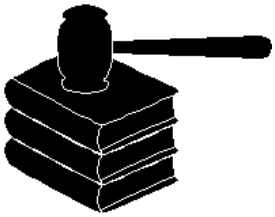
Students become familiar with how legislation on hazardous waste is developed, enacted, implemented, and enforced. Students gain an understanding of how hazardous waste cleanup laws are enacted and intended to function by creating a statute and set of regulations that parallel the issues covered by Superfund.

Background

Hazardous waste comes from a variety of sources, from both present and past activities. Years ago, before we understood the dangers of hazardous waste, there were no laws controlling its disposal. Many businesses simply threw out their hazardous waste with the rest of their trash—so it ended up in a landfill, was left behind when they moved, dumped in a river or lake, or buried in the ground.

Eventually, thousands of uncontrolled or abandoned hazardous waste sites were created in abandoned warehouses, manufacturing facilities, harbors, processing plants, and landfills, to name a few. Congress created the Superfund Program to investigate and clean up hazardous waste sites nationwide.

Fact Flash 2: The Superfund Cleanup Program, provides a good overview of what the U.S. Environmental Protection Agency (EPA) is trying to accomplish with the Superfund Program.



Under the law creating the Superfund Program, the people and companies responsible for the presence of the hazardous waste at a site are liable for its cleanup. EPA can make these responsible parties pay for or perform the study and cleanup work at the site. EPA negotiates with the **Potentially Responsible Parties (PRPs)** to reach an agreement. If the PRPs refuse to act, EPA pays for the cleanup with money from the Superfund trust fund and seeks to recover those costs from the responsible parties. If the PRPs cannot be identified or cannot pay for the cleanup, EPA can pay for the work out of the fund.

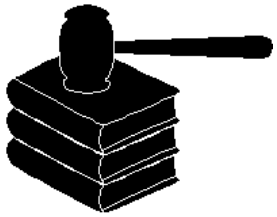
The law also creates severe **liability** for the PRPs EPA identifies at a particular site. This means that any individual PRP can be held responsible, or liable, for the cost or performance of the entire cleanup job, rather than just the portion that they caused. This kind of liability is unusual and gives EPA a powerful legal tool. The reason for it is best explained by the question "Who should pay?" The answer is that the polluter pays. Sites are usually abandoned, making the identification of all PRPs very difficult. Past recordkeeping at the site is frequently faulty, and often potential PRPs no longer exist or are bankrupt. Also, many sites are waste dumps often containing wastes from many different generators that have been mixed together; this makes equitable apportionment of liability impossible. The law says that those who profited from the businesses that created the harm should pay to clean it up instead of the public.

Finally, different contaminants pose different threats. Quantifying threats, as discussed in *Activity 6: Examining the Effects of Pollution on Ecosystems* and *Activity 7: Identifying Risks at a Superfund Site*, is complicated at best. For example, one PRP may have sent a small amount of a highly toxic waste to a site, while another may have sent a larger volume of a slightly toxic substance. Under Superfund, the government chooses not to try to apportion this liability among the PRPs.

To help prepare your students for this unit, use *Warm-Up Exercise 2: EPA's Superfund Program—Overview.*

As a follow-up to this unit, have your students perform *Activity 6: Examining the Effects of Pollution on Ecosystems; Activity 7: Identifying Risks at a Superfund Site;* and *Activity 11: What the Community Can Do.*

For more in-depth information on the topics covered in this unit, see *Fact Flash 10: Superfund Community Involvement Program* and *Fact Flash 11: Other Major Environmental Laws.* For additional information, see the Suggested Reading list found at the end of the Haz-Ed materials.



Preparation

1. Gather the following materials:

   - Copies for each student of the Student Handout, *Federal and State Laws on Hazardous Waste*
   - Copies for each student of *Fact Flash 2: The Superfund Cleanup Program.*

2. Read Fact Flash 2 to prepare your lecture.

3. Distribute the Student Handout and Fact Flash 2. Assign students to read Fact Flash 2 for homework and prepare responses to the questions in the Student Handout.

4. Explain that for the lesson on hazardous waste laws, students will be divided into groups. Each group will discuss the questions on the handout and devise a program for dealing with hazardous waste sites based on group consensus.

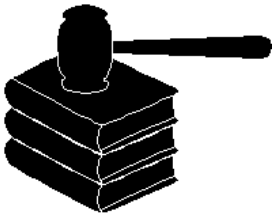
Procedure

1. Divide the class into groups. (The number of groups may vary, but each should include 5 or 6 students.)

2. Briefly review the concerns raised in the handout and the questions that students must answer when they are devising their program. If they were in charge, what would they do? What kind of laws would they need?

3. Have members of each group discuss among themselves how best to determine goals for dealing with hazardous waste sites and design a program to accomplish these goals. The group should also be prepared to discuss and advocate their program, and to answer questions posed by other students.

4. Remind the students that each member of the group should state his or her position on the issues, and the group should adopt a response to every question before moving on to the next one. If the group agrees on an issue, it should move on to the next one. If it cannot agree in a short time (e.g., 5 minutes), it should move on, considering the next question(s) in light of the alternative positions that were suggested for the problem question, until one response comes out as the best.



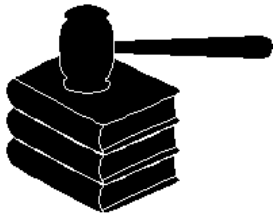
5. For the last 10 minutes of the period, tell the students to outline the program they have decided on. They should list the features of the program that respond to each question.

6. Collect the outlines and briefly review the features of each, noting where the groups agree and where the programs diverge.

Extensions (Optional)

- A second class period can be scheduled to compare and contrast the programs designed by the students with the actual Superfund Program. Each group can designate a spokesperson to respond to questions from the class and defend the approach taken by the group.

- Make copies and distribute *Fact Flash 11: Other Major Environmental Laws*. Discuss how the approach to environmental protection can differ according to program goals and the means available to achieve those goals.



Federal and State Laws on Hazardous Waste

Until 1980, there was no comprehensive Federal law that addressed the problems and threats posed by abandoned and inactive hazardous waste sites. Across the country there were thousands of abandoned and inactive hazardous waste sites that were exposing people to various health and safety risks. There were, however, a number of environmental laws that dealt with pollution, active hazardous waste facility management, and other environmental contamination.

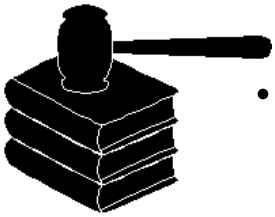
In this exercise, your group will devise a program to deal with the problem of abandoned and inactive hazardous waste sites. By evaluating the following questions and developing responses, your group should be able to outline a program to address these sites. Remember, your program should include the underlying issues of identifying sites, assessing and ranking site hazards, reducing risk, identifying the people and companies responsible for the contamination, and financing the cleanup. While there are guidelines under each question to help you, feel free to discuss and adopt any approach that you feel responds to the question. These are the same basic questions addressed by Congressional and EPA policy makers when they developed the actual Superfund program.

1. **Should the government respond to threats posed by abandoned and inactive hazardous waste sites?**

   Consider the implications of taking action to reduce and eliminate the threats posed by abandoned and inactive hazardous waste sites versus doing nothing. If nothing is done, then thousands of these sites will continue to expose public health and the environment to possible harm. If the government decides to act, however, it will be taking on an enormous task: hazardous waste sites are common to every area of the country, and hazardous waste is not easily cleaned up. The job is usually very expensive.

2. **Should the government clean up such sites by removing or treating hazardous waste, or take other measures such as isolating or containing the waste?**

   Hazardous waste can be treated or disposed of in a way that reduces or eliminates risks to health and the environment. Most treatments include a process or technology that may increase the costs of taking action, but will reduce the health and safety risks to acceptable levels. Disposal in a permitted facility reduces risks by eliminating the danger of the uncontrolled wastes spreading. If the hazards are left untreated at the site, they could be dealt with more cheaply by somehow containing and isolating the site. This could be done with a fence or by posting warning signs. Remember that contaminants in soil will usually filter down and contaminate groundwater.



3. Should the government clean up all contaminated sites or a limited number?

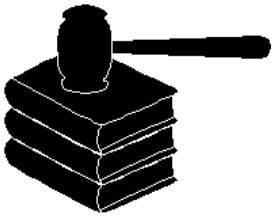
Tens of thousands of sites around the country contain at least 1 substance that negatively impacts human health or the environment. These could all be defined as hazardous waste sites. If the government attempts to identify and respond to all of these sites, there would be no end in sight, since "new" sites are created as old ones are being cleaned. If only a limited number are addressed, however, this leaves the government open to problems related to selecting some sites but not others.

4. If only a limited number of sites are cleaned up, how should the government select sites for cleanup? What factors will affect site selection?

Selecting sites as targets for cleanup can be based on a number of factors. Think about the factors that could affect this decision and list them. Then select the ones that make the most sense. For example, should site selection focus on protecting human health, the environment, or both? Should sites be selected based on the ease with which they can be cleaned up, allowing the program to demonstrate success early on? Should selected sites be restricted to those close to large populations of people, or will attention to these only cause undue alarm in the nearby communities? Should site selection focus on scientific assessment of the sites, selecting sites that possess the most significant concentrations of hazardous waste? Should site cleanups be evenly distributed around the country, so that no one region feels left out? What if a site is highly contaminated but is far away from any populated areas?

5. If a site is selected for cleanup, how should the methods to be used to perform the cleanup be selected? What factors should be considered in selecting the cleanup methods? What degree of cleanup should be achieved? Should it be the same for all sites?

As mentioned above, there are many ways to approach a cleanup. If waste is simply removed, the site can be quickly cleaned, but the waste still exists: it just becomes someone else's problem. If a treatment technology is to be used, this could entail time delays, labor, and other costs. Selecting among alternative treatment technologies can be difficult, and can depend on the level of cleanup to be achieved. Should cleanup jobs remove all risks posed by a site? Could a cleanup job leave behind a reasonable amount of controlled waste? What if a particular contaminant is difficult or impossible to treat? Should cost be a factor in selecting the approach? What about acceptance of the approach by the local community?



6. Who should be liable (responsible) for the cleanup of a hazardous waste site?

This is a critical issue in your statute and should be carefully considered. Who should perform the cleanup? Who should pay? Should the Federal or state government perform or pay for all cleanups, since the society at large benefits from the production of goods that result in the generation of hazardous waste? Where would the money come from? Higher taxes? If the government performs the cleanup, should the states have to contribute? Should it be a public works program (performed by government employees) or should the government hire private companies to do cleanup work? Should individual parties responsible for the presence of the contaminated waste at the site be liable? If you hold the responsible parties liable, should they be allowed to assess the site and select the methods for cleanup? If more than one person is responsible for the site contamination, how should liability for site cleanup be allocated? What if one of those parties is the Federal government or a state or local government? What if some of the responsible parties no longer exist or are bankrupt?

7. How should the public be involved in your program?

Should they be informed of what is happening at the site when it happens? After it's done? Do they have a say in the decisions? Will the public's preferences be the most important factor? What kinds of programs will you set up to involve the public.